

FEATURES

- Same housing for all ranges
- Mechanical stops in option
- Optional:
 - Tension Pull Plate
 - Load Button
- Integrated amplifier optional

APPLICATIONS

- Process control equipment
- Regulation load cell
- Robotics and effectors
- Laboratory and Research
- Dedicated to low and medium quantity volume

FN3050

Load Cell Tension and Compression

SPECIFICATIONS

- Range from 100 N to 20000 N (22.5 lbf to 4496 lbf)
- Accuracy: 0.1% F.S.
- Stainless steel or aluminum
- Connector or cable gland output
- Build in amplifier per request

The rugged **FN3050** load cell is highly suited for process industry and test bench applications. Dimensions are identical in standard ranges from 0-100 N to 0-20000 N so during testing the sensor can be interchanged for another of a different range without mechanical modifications. The sensor design minimizes transverse effects. For high-level output, a model with integrated amplifier is available as are numerous other options.

With a long-standing experience as a designer and manufacturer of sensors, TE CONNECTIVITY often works with customers to design or customize sensors for specific uses and testing environments.

To meet your needs, we also offer extensive turnkey systems. The matched components (sensor, power, amplifier and digital display) are formatted, calibrated and ready for immediate use.

On request, Instruction documents can be provided to ease the selection and use of our sensors and provide helpful tips.

CHARACTERISTICS (typical values at temperature 23°C)

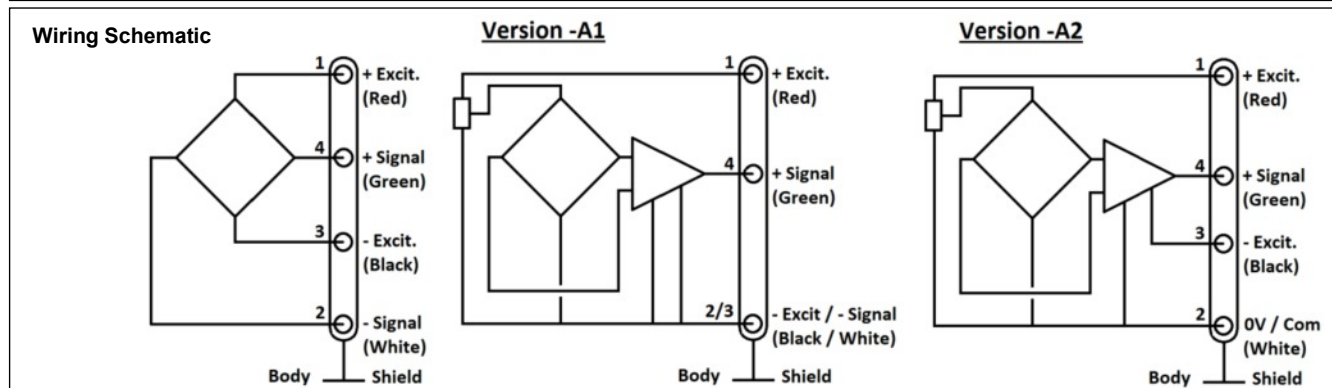
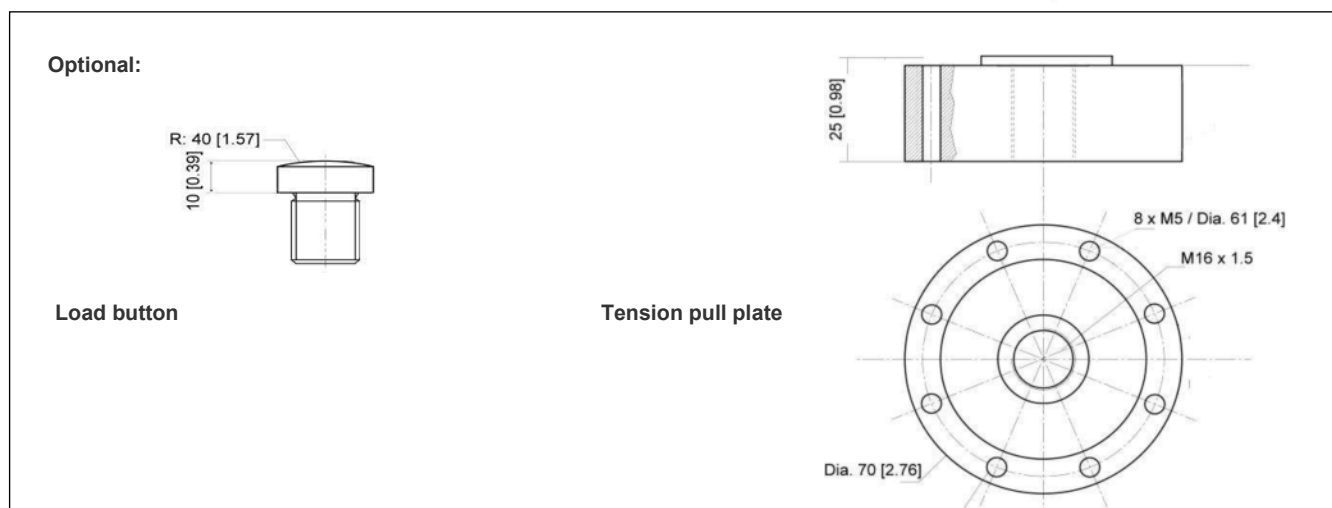
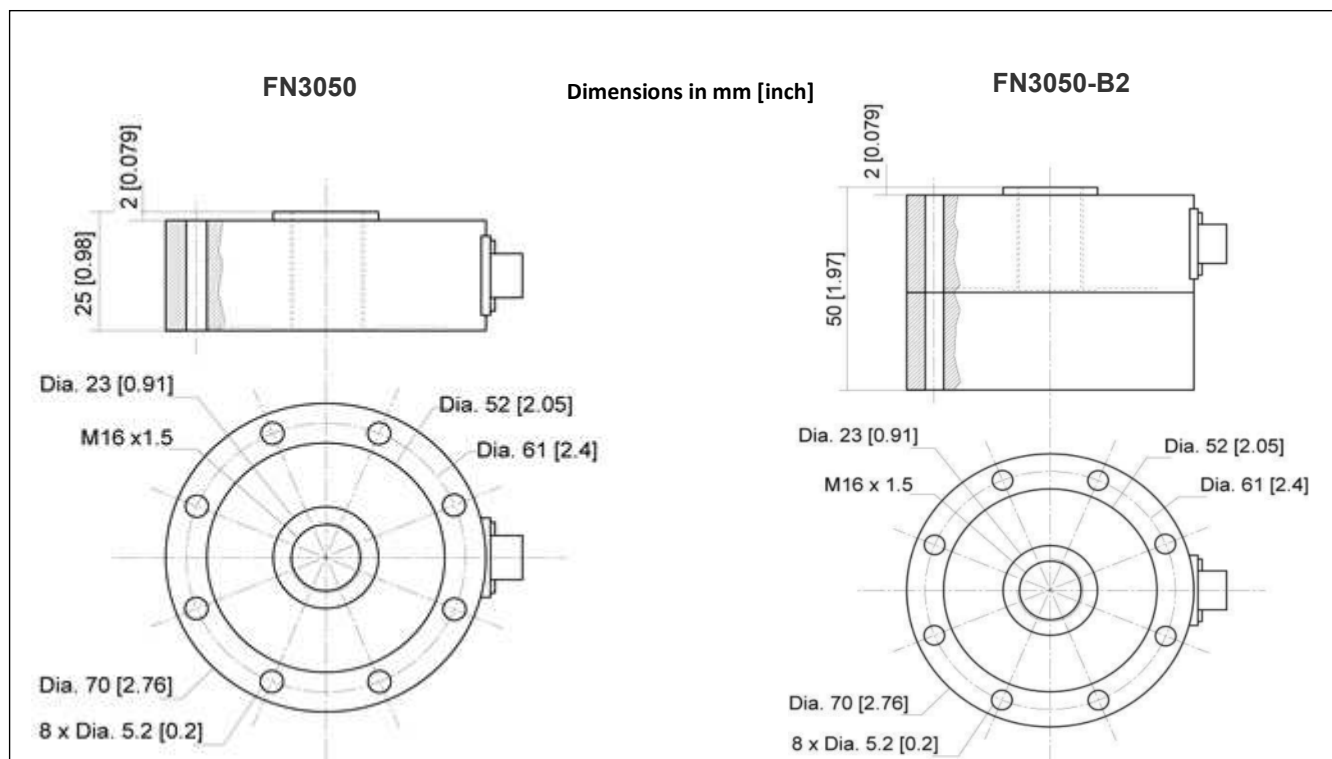
| Ranges (FS) (N) | 100 | 200 | 500 | 1k | 2k | 5k | 10k | 20k |
|------------------------|------------|---------|---------|-----------------|---------|-----------|-----------------|---------|
| Ranges (lbf) | 22.48 | 44.96 | 112.4 | 224.8 | 449.6 | 1124 | 2248 | 4496 |
| Material | Aluminium | | | Stainless Steel | | Aluminium | Stainless Steel | |
| Stiffness (N/m) | 1.2E+06 | 2.7E+06 | 9.9E+06 | 1.7E+07 | 3.9E+07 | 2.3E+08 | 5.4E+08 | 8.7E+08 |
| Stiffness (lbf/ft) | 8.4E+04 | 1.8E+05 | 6.8E+05 | 1.2E+06 | 2.7E+06 | 1.6E+07 | 3.7E+07 | 5.9E+07 |
| Linearity & hysteresis | < ±0.3% FS | | | - | | | | |
| Linearity | - | | | < ±0.1% FS | | | | |
| Hysteresis | - | | | < ±0.1% FS | | | | |

| Version | Standard | A1 | A2 |
|-------------------------------------|--------------------------------|---------------|-----------------|
| Power supply | 10Vdc | 10Vdc à 30Vdc | ±12Vdc à ±18Vdc |
| Sensitivity (FSO) | ±15mV | ±2Vdc ±0.2V | ±5Vdc ±0.25V |
| Offset | <±1 mV | 2.5Vdc ±0.2V | 0V ±0.25V |
| Input Impedance / Consumption | 700 ohms | <30mA | |
| Output Impedance | 700 ohms | 1000 ohms | |
| Overrange Without Damage | 1.5x FS | | |
| Overrange Without Destruction | 3x FS | | |
| Operating Temperature Range (OTR) | -20°C to +80°C (-4°F to 176°F) | | |
| Compensated Temperature Range (CTR) | 0°C to +60°C (32°F to 140°F) | | |
| Thermal Zero Shift in CTR | < 0.5% FS/50°C | | |
| Thermal Sensitivity Shift in CTR | < 1%/50°C | | |
| Insulation | > 1000 Mohms | | |
| Protection Index | IP50 | | |

Notes

1. Signal goes positive in tension with standard wiring configuration. Other signal output on request
2. Electrical Termination: Connector output including mate
3. Body in stainless steel or aluminium alloy depending on F.S.
4. Output impedance < 100Ω on request
5. CE conformance according to EN 61010-1, EN 50081-1, EN 50082-1

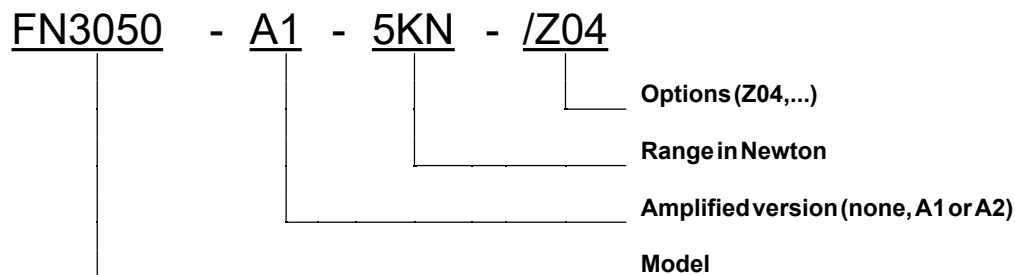
DIMENSIONS & WIRING SCHEMATIC (IN METRIC AND IMPERIAL)



OPTIONS

| | |
|-----|---|
| B2 | Mechanical stops (compression only, models ≤2000 N) Overrange Without Damage 10x FS |
| Z04 | CTR -40°C to +90°C (-40°F to 194°F) (OTR -40°C to +90°C (-40°F to 194°F)) |
| Z35 | CTR +20°C to +120°C (68°F to 248°F) (OTR -20°C to +120°C (-4°F to 248°F)) |
| Z36 | CTR +20 to +150°C (68°F to 302°F) (OTR -20°C to +150°C(-4°F to 302°F)) - not available with A1/A2 |

ORDERING INFO



SUPPLIED ACCESSOIRES

| |
|---|
| EFMX-4M: mating plug Jaeger 530-801-006 with clamp 530-841-006 standard and Z04 |
| EFMX-4H: mating plug Jaeger 530-804-006 with clamp 530-844-006 for Z35 or Z36 option |

RECOMMENDED ACCESSORIES

| |
|--|
| OPTEH004: Hemispherical load button |
| OPTFF006: Tension pull plate |

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